

**REMARKS**

Applicants hereby traverse the current rejections, and request reconsideration and withdrawal in light of the remarks contained herein. Claim 12 is indicated as having allowable material. Claims 1-28 are pending in this application.

**Rejection under 35 U.S.C. §102(b)**

Claims 1-2, 4, 6-11, 20, 24-26 and 28 are rejected under 35 U.S.C. §102(b) as being anticipated by Kahn et al. ('467, hereinafter Kahn).

It is well settled that to anticipate a claim, the reference must teach every element of the claim, see M.P.E.P. §2131. Moreover, in order for a prior art reference to be anticipatory under 35 U.S.C. § 102 with respect to a claim, "[t]he elements must be arranged as required by the claim," see M.P.E.P. § 2131, citing *In re Bond*, 15 U.S.P.Q.2d 1566 (Fed. Cir. 1990). Furthermore, in order for a prior art reference to be anticipatory under 35 U.S.C. § 102 with respect to a claim, "[t]he identical invention must be shown in as complete detail as is contained in the . . . claim," see M.P.E.P. § 2131, citing *Richardson v. Suzuki Motor Co.*, 9 U.S.P.Q.2d 1913 (Fed. Cir. 1989). Applicants respectfully assert that the rejection does not satisfy these requirements.

Claim 1 defines a switchable polarizer that has the first and second electrodes conducting current to heat the polarizer. Kahn does not disclose at least this limitation. As shown in Figure 1 of Kahn, and discussed at column 2 line 63, only one electrode, namely electrode 18 is used to heat the liquid crystal material 20. Thus, Kahn does not teach all of the claimed limitations. Therefore, the Applicants respectfully assert that for the above reasons claim 1 is patentable over the 35 U.S.C. § 102 rejection of record.

Claim 20 defines a switchable polarizer that has the set of electrodes be operable to conduct sufficient current to control a temperature of said layer of liquid crystal. Kahn does not disclose at least this limitation. As shown in Figure 1 of Kahn, and discussed at column 2 line 63, only one electrode, namely electrode 18 is used to heat the liquid crystal material 20. Thus, Kahn does not teach all of the claimed limitations. Therefore, the Applicants

respectfully assert that for the above reasons claim 20 is patentable over the 35 U.S.C. § 102 rejection of record.

Claim 24 defines a method that includes driving a set of electrodes to cause current to flow through said set of electrodes to sufficiently heat a liquid crystal layer of said liquid crystal polarizer to control a temperature of said liquid crystal layer. Kahn does not disclose at least this limitation. As shown in Figure 1 of Kahn, and discussed at column 2 line 63, only one electrode, namely electrode 18 is used to heat the liquid crystal material 20. Thus, Kahn does not teach all of the claimed limitations. Therefore, the Applicants respectfully assert that for the above reasons claim 24 is patentable over the 35 U.S.C. § 102 rejection of record.

Claims 2, 4, 6-11, 25-26 and 28 depend from base claims 1 and 24, respectively, and thus inherit all limitations of their respective base claim. Each of claims 2, 4, 6-11, 25-26 and 28 sets forth features and limitations not recited by Kahn. Thus, the Applicants respectfully assert that for the above reasons claims 2, 4, 6-11, 25-26 and 28 are patentable over the 35 U.S.C. § 102 rejection of record.

#### **Rejection under 35 U.S.C. §102(b)**

Claims 17-19 are rejected under 35 U.S.C. §102(b) as being anticipated by Kubota et al. ('155, hereinafter Kubota).

It is well settled that to anticipate a claim, the reference must teach every element of the claim, see M.P.E.P. §2131. Moreover, in order for a prior art reference to be anticipatory under 35 U.S.C. § 102 with respect to a claim, "[t]he elements must be arranged as required by the claim," see M.P.E.P. § 2131, citing *In re Bond*, 15 U.S.P.Q.2d 1566 (Fed. Cir. 1990). Furthermore, in order for a prior art reference to be anticipatory under 35 U.S.C. § 102 with respect to a claim, "[t]he identical invention must be shown in as complete detail as is contained in the . . . claim," see M.P.E.P. § 2131, citing *Richardson v. Suzuki Motor Co.*, 9 U.S.P.Q.2d 1913 (Fed. Cir. 1989). Applicants respectfully assert that the rejection does not satisfy these requirements.

Claim 17 defines a switchable polarizing apparatus having a layer of liquid crystal material positioned between the first and second electrodes. Kubota does not disclose at least this limitation. The Office Action identifies the + and – electrodes in Figure 4 of Kubota as corresponding to the claimed electrodes. However, the + and – electrodes of Figure 4 are connected to the Scan Signal Line Driving Circuit element, which as shown in Figure 1 as element 3, is not an active element, and thus would not have a layer of liquid crystal material positioned between them. Thus, Kubota does not teach all of the claimed limitations. Therefore, the Applicants respectfully assert that for the above reasons claim 17 is patentable over the 35 U.S.C. § 102 rejection of record.

Furthermore, in order to properly establish a rejection based on inherency, “the Examiner must provide a basis in fact and/or technical reasoning to reasonably support the determination that the allegedly inherent characteristic necessarily flows from the teachings of the applied prior art,” M.P.E.P. § 2112, citing Ex parte Levy, 17 USPQ2d 1461, 1464 (Bd. Pat. App. & Inter. 1990) (emphasis original). The Examiner’s statement a liquid crystal layer is inherent between the two electrode is conclusion and does not provide any basis in fact or technical reason to support such an inference. Moreover, the Applicants note that the element 3 is not located in the active region and thus would not have a layer of liquid crystal material between them. Furthermore, the electrodes of element 3 appears to be connected to an circuit that is external to the substrate 5. Again, the electrode would not have a layer of liquid crystal material between them. Thus, the Examiner has not met the burden of a rejection using inherency as a supporting rationale.

Claims 18-19 depend from base claim 17, and thus inherit all limitations of claim 17. Each of claims 18-19 sets forth features and limitations not recited by Kubota. Thus, the Applicants respectfully assert that for the above reasons claims 18-19 are patentable over the 35 U.S.C. § 102 rejection of record.

#### **Rejection under 35 U.S.C. §103(a)**

Claims 3, 5, 21, 22, and 27 are rejected under 35 U.S.C. §103(a) as being unpatentable over Kahn in view of Ferguson et al. (‘999, hereinafter Ferguson).

To establish a prima facie case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art cited must teach or suggest all the claim limitations. See M.P.E.P. §2143. Without conceding the first and second criteria, Applicants assert that the rejection does not satisfy the third criteria.

The Office Action admits that Kahn does not teach having a color switch. The Office Action attempts to cure this deficiency by introducing Ferguson, which the Office Action alleges to teach having such limitations. However, this combination, as presented, does not teach or suggest all limitations of the claimed invention.

Base claims 1, 20, and 24 are defined as described above. Kahn does not disclose these limitations, as discussed above. Ferguson is not relied upon in the Office Action as disclosing these limitations. Therefore, the combination of references does not teach all elements of the claimed invention.

Claims 3, 5, 21, 22, and 27 depend from base claims 1, 20, and 24, respectively, and thus inherit all limitations of their respective base claim. Each of claims 3, 5, 21, 22, and 27 sets forth features and limitations not recited by the combination of Kahn and Ferguson. Thus, the Applicants respectfully assert that for the above reasons claims 3, 5, 21, 22, and 27 are patentable over the 35 U.S.C. § 103(a) rejection of record.

**Rejection under 35 U.S.C. §103(a)**

Claim 23 is rejected under 35 U.S.C. §103(a) as being unpatentable over Ferguson in view of Kahn and further in view of Kubota.

To establish a prima facie case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success.

Finally, the prior art cited must teach or suggest all the claim limitations. See M.P.E.P. §2143. Without conceding the first and second criteria, Applicants assert that the rejection does not satisfy the third criteria.

The Office Action admits that the combination of Fergason and Kahn does not teach having a set of amplifiers. The Office Action attempts to cure this deficiency by introducing Kubota, which the Office Action alleges to teach having such limitations. However, this combination, as presented, does not teach or suggest all limitations of the claimed invention.

Base claim 20 is defined as described above. Kahn does not disclose these limitations, as discussed above. Fergason is not relied upon in the Office Action as disclosing these limitations. Kubota is also not relied upon in the Office Action as disclosing these limitations. Therefore, the combination of references does not teach all elements of the claimed invention.

Claim 23 depends from base claim 20, and thus inherit all limitations of claim 20. Claim 23 sets forth features and limitations not recited by the combination of Kahn, Fergason, and Kubota. Thus, the Applicants respectfully assert that for the above reasons claim 23 is patentable over the 35 U.S.C. § 103(a) rejection of record.

**Rejection under 35 U.S.C. §103(a)**

Claims 13-14 and 16 are rejected under 35 U.S.C. §103(a) as being unpatentable over Fergason in view of Kahn.

To establish a prima facie case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art cited must teach or suggest all the claim limitations. See M.P.E.P. §2143. Without conceding the second criteria, Applicants assert that the rejection does not satisfy the first and third criteria.

Lack of Motivation

The Office Action admits that Ferguson does not teach having a applying first and second voltage signals to first and second electrodes. The Office Action attempts to cure this deficiency by introducing Kahn, which the Office Action alleges to teach having such limitations. The motivation for making the combination was presented as follows:

“It would have obvious ... to provide the DC voltage source reviewed by Kahn for LCD device of Ferguson, because this would provide the voltage for the LCD device.”

It is well settled that the fact that references can be combined or modified is not sufficient to establish a prima facie case of obviousness, M.P.E.P. §2143.01. The language of the recited motivation is circular in nature, stating that it is obvious to make the modification because it is obvious to achieve the result. Such language is merely a statement that the reference can be modified, and does not state any desirability for making the modification. Moreover, Ferguson already has a voltage for its elements, see Figure 4, and the text at column 4, line 64. Thus, the device of Ferguson would not require the teachings of Kahn. Consequently, such motivational language is merely a statement that the reference can be modified, and does not state any desirability for making the modification. The mere fact that references can be combined or modified does not render the resultant combination obvious unless the prior art also suggests the desirability of the combination. In re Mills, 916 F.2d 680, 16 USPQ.2d 1430 (Fed. Cir. 1990), as cited in M.P.E.P. §2143.01. Thus, the motivation provided by the Examiner is improper, as the motivation must establish the desirability for making the modification.

No valid suggestion has been made as to why a combination of Ferguson and Kahn is desirable. Therefore, the rejection of claims 13-14 and 16 should be withdrawn.

Lack of Limitations

The Office Action admits that Ferguson does not teach having a applying first and second voltage signals to first and second electrodes. The Office Action attempts to cure this deficiency by introducing Kahn, which the Office Action alleges to teach having such

limitations. However, this combination, as presented, does not teach or suggest all limitations of the claimed invention.

Claim 13 defines a method of driving a switchable polarizer in one of two modes, the switchable polarizer having first and second electrodes, wherein during a first driving mode, the electrodes heat the liquid crystal material, while during the second driving mode, the electrodes do not heat the liquid crystal material. The method includes applying a first voltage signal to the first electrode and a second voltage signal to the second electrode during both the first and second driving modes. The Office Action states that the second driving mode is taught by Ferguson, and is where both switches 40 and 50 are not connected to the current source 56 and the video source 58. However, this does not teach the claimed limitation where a first voltage signal is applied to the first electrode and a second voltage signal is applied to the second electrode during both the first and second driving modes. Thus, Ferguson does not teach this limitation and Kahn is not relied upon as teaching this limitation. Consequently, the combination of Ferguson and Kahn do not teach all of the claimed limitations. Therefore, the Applicants respectfully assert that for the above reasons claim 13 is patentable over the 35 U.S.C. § 103(a) rejection of record.

Claims 14 and 16 depend from base claim 13, and thus inherit all limitations of claim 13. Each of claims 14 and 16 sets forth features and limitations not recited by the combination of Ferguson and Kahn. Thus, the Applicants respectfully assert that for the above reasons claims 14 and 16 are patentable over the 35 U.S.C. § 103(a) rejection of record.

With regard to claim 14, Applicant notes that the Examiner has incorrectly used judicial precedent. The precedent of making separable is discussed in the M.P.E.P. § 2144.04.V.C., and may be used to separate an integral element from a device or system. In this case, the Examiner is using this precedent to split one current source into two current sources. Thus, this precedent is improper and does not provide the required legal basis for this proposed modification of the references. Thus, the Applicants respectfully assert that for the above reasons claim 14 is patentable over the 35 U.S.C. § 103(a) rejection of record.

**Rejection under 35 U.S.C. §103(a)**

Claim 15 is rejected under 35 U.S.C. §103(a) as being unpatentable over Fergason in view of Kahn and further in view of Hong et al. ('933, hereinafter Hong).

To establish a prima facie case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art cited must teach or suggest all the claim limitations. See M.P.E.P. §2143. Without conceding the second criteria, Applicants assert that the rejection does not satisfy the first and third criteria.

The Office Action admits that the combination of Fergason and Kahn does not teach coupling each electrode to an output of an amplifier. The Office Action attempts to cure this deficiency by introducing Hong, which the Office Action alleges to teach having such limitations. However, this combination, as presented, does not teach or suggest all limitations of the claimed invention.

The deficiencies of the motivation used to combine Fergason and Kahn is described above. The motivation used to combine Hong with the combination of Fergason and Kahn does not solve the deficiency of combining Fergason and Kahn. Therefore, the Hong cannot be combined with Fergason/Kahn, because Fergason cannot be properly combined with Kahn.

Base claim 13 is defined as described above. Fergason does not disclose these limitations, as discussed above. Kahn is not relied upon in the Office Action as disclosing these limitations. Hong is also not relied upon in the Office Action as disclosing these limitations. Therefore, the combination of references does not teach all elements of the claimed invention.

Claim 15 depends from base claim 13, and thus inherit all limitations of claim 13. Claim 15 sets forth features and limitations not recited by the combination of Fergason,



Kahn, and Hong. Thus, the Applicants respectfully assert that for the above reasons claim 15 is patentable over the 35 U.S.C. § 103(a) rejection of record.

**Conclusion**

Applicants respectfully assert that claim 12 is allowed, as claim 12 is not subject to any rejection of record. Thus, Applicants respectfully request that the Examiner provide such an indication of allowability.

In view of the above statements, applicants believe the pending application is in condition for allowance.

Applicants believe no fee is due with this response. However, if a fee is due, please charge Deposit Account No. 08-2025, under Order No. 10992292-1, from which the undersigned is authorized to draw.

Dated: May 9, 2005

I hereby certify that this correspondence is being deposited with the U.S. Postal Service as Express Mail, Airbill No. EV482707947US, in an envelope addressed to: MS Amendment, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on the date shown below.

Dated: May 9, 2005

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